

## USER INTERFACES, ASSOCIATED APPARATUS AND METHODS

### TECHNICAL FIELD

**[0001]** The present disclosure relates to the field of user interfaces, associated methods, computer programs and apparatus. Certain disclosed aspects/embodiments relate to portable electronic devices, in particular, so-called hand-portable electronic devices which may be hand-held in use (although they may be placed in a cradle in use). Such hand-portable electronic devices include so-called Personal Digital Assistants (PDAs) and tablet personal computers.

**[0002]** The portable electronic devices/apparatus according to one or more disclosed aspects/embodiments may provide one or more audio/text/video communication functions (e.g. tele-communication, video-communication, and/or text transmission (Short Message Service (SMS)/Multimedia Message Service (MMS)/emailing) functions), interactive/non-interactive viewing functions (e.g. web-browsing, navigation, TV/program viewing functions), music recording/playing functions (e.g. MP3 or other format and/or (FM/AM) radio broadcast recording/playing), downloading/sending of data functions, image capture function (e.g. using a (e.g. in-built) digital camera), and gaming functions.

### BACKGROUND

**[0003]** Some portable electronic devices are configured to allow a user to enter characters and text by scribing on a suitable surface, such as a touch-sensitive screen. In this way the user can input characters to the device in a similar manner to writing with a pen on paper. The device may be configured to compare the entered character with entries in a database of characters so that the user can select, from the database, the character which they wished to enter. Entry of a bad stroke during entry of a character may mean that the device cannot find a match in the database of characters. The user may have to enter the whole character again to try and obtain a match.

**[0004]** The listing or discussion of a prior-published document or any background in this specification should not necessarily be taken as an acknowledgement that the document or background is part of the state of the art or is common general knowledge.

### SUMMARY

**[0005]** In a first aspect, there is provided an apparatus, the apparatus comprising:

- [0006]** at least one processor; and
- [0007]** at least one memory including computer program code,
- [0008]** the at least one memory and the computer program code configured to, with the at least one processor, cause the apparatus to perform at least the following:
- [0009]** enable detection of one or more stroke user inputs for use in deciphering an entered character during a character entry mode;
- [0010]** enable detection of a jolt during the character entry mode;
- [0011]** upon detection of the jolt, associate one or more of the stroke user inputs with the jolt; and

**[0012]** provide for a predetermined timeout period during which the one or more associated stroke user inputs are at least one of

**[0013]** considered for removal from display and

**[0014]** considered for removal from consideration in deciphering the entered character.

**[0015]** A stroke user input may be a line, curve, dot or flick forming a stroke which forms part (or all of) a character, letter, number or symbol. For example, the western letter “x” may be written with two stroke user inputs, once from top left to bottom right, and a second stroke from top right to bottom left, crossing the first stroke at the centre of the two strokes.

**[0016]** Deciphering an entered character may be comparing the user-entered character with a list of predefined characters stored, for example, in a database accessible by the apparatus (the database may or may not be stored on the apparatus, e.g. the database may be on a remote server). Deciphering may be taken to mean understanding the entered strokes forming a character with a view to providing a predefined matching character. A jolt is a sudden, abrupt and/or uncharacteristic movement of the apparatus, user and/or scribing/writing implement. A jolt may occur by the user’s writing hand or arm being pushed or knocked, or by the user holding and using the apparatus while travelling in a vehicle which, for example, moves over a speed bump or stops abruptly. A predetermined timeout period may be considered a period of time (for example, 1, 2 or 3 seconds) during which the apparatus is configured to consider a stroke/strokes entered upon detection of (e.g. during) a jolt for removal from display and/or removal from consideration in deciphering the entered character.

**[0017]** The apparatus may be configured to enable detection of one or more further stroke user inputs during the predetermined timeout period to allow input of a character to be completed, and if one or more further stroke user inputs are detected during the predetermined timeout period, the one or more associated stroke user inputs are at least one of displayed and considered in deciphering the entered character. During the timeout period, the user may be able to continue entering stroke user inputs to complete the character they are inputting. The user may be happy with the input entered during the detected jolt, for example if the jolt did not affect the way in which the user wished to enter the associated stroke user input. The associated stroke user inputs may still be displayed and/or be considered in deciphering the entered character.

**[0018]** The apparatus may be configured to enable detection of one or more further stroke user inputs during the predetermined timeout period to allow input of a character to be completed, and if one or more further stroke user inputs are detected during the predetermined timeout period, the one or more associated stroke user inputs are at least one of removed from display and removed from consideration in deciphering the entered character. In this case the associated stroke user inputs are at least one of removed from display and removed from consideration in deciphering the entered character.

**[0019]** The apparatus may be configured to remove the one or more associated stroke user inputs from display but still consider the one or more associated stroke user inputs in deciphering the entered character according to a predetermined criterion. That is, in the event of an associated stroke user input being made (during/upon detection of a jolt), the stroke may be removed from display, for example to allow the user to continue entering the character without being dis-